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New Shrubs From Old . . . BY LAYERING

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For home owners who wish to have a few more plants of some particularly favored varieties of shrubs, trees, vines or evergreens, layering is relatively sure of success with most woody ornamentals. One of the main reasons why this method is particularly successful is that the layered stem is nourished by the parent plant until it has formed its own roots and is able to perform complete plant functions by itself. Another advantage is that all plants produced vegetatively, as by layering, will have the same flower, fruit, and foliage characteristics as the parent plant.

One method is *simple layering;* a method that is particularly easy with plants that have stems flexible enough to be bent easily to the ground. Another method is *air layering* which may be used on plants having flexible stems, but it is particularly valuable for obtaining new plants from those that have upright, stiff stems that cannot be laid over easily in contact with the soil. *Mound layering* is a third method and may be used on many plants, either those that have stiff or flexible stems.

With either *simple* or *air* layering, a stem of the previous season's growth, one about the size of a lead pencil, is prepared in the early spring by making a shallow knife slit or notch through the bark and on the under side of the stem just below a node (figure 1). New roots are most often produced in this area. A rooting hormone may be used and, on some plants will stimulate quicker and more prolific rooting. Many plants will root satisfactorily without being treated with a hormone. Strip the leaves from the part of the stem to be rooted but do not remove them from the tip of the stem.

SIMPLE LAYERING

Simple layering is done by making a trench about 6 inches deep in a location convenient to the prepared stem. Mix peat or some other organic

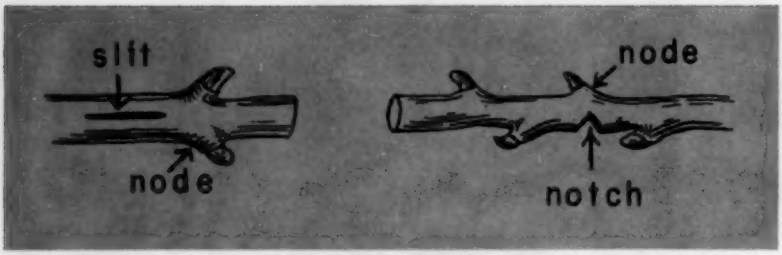

Figure 1. A stem about the size of a lead pencil from the previous season's growth is prepard for layering

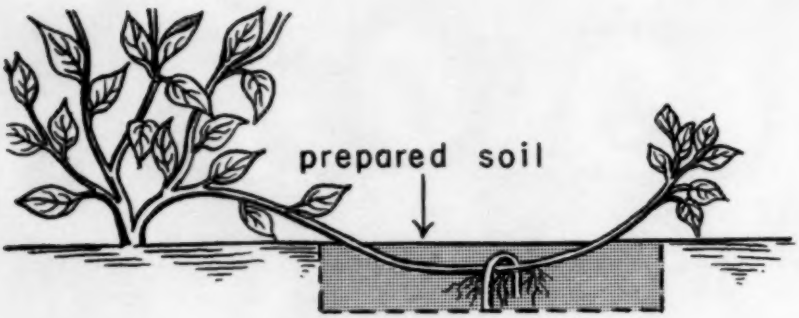

Figure 2. A simple layer

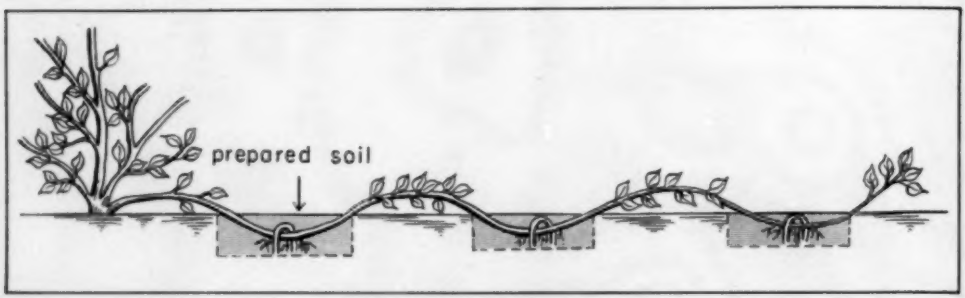

Figure 3. A multiple layer

material with the loose soil. Slit and bend the stem so as to place the slit or crotch two or three inches deep in the prepared trench. The tip of the stem, with leaves intact, is left to protrude above the ground. Firm the prepared soil around the stem and hold it in place by means of a bent wire, forked stick, a stone, or some other device (figure 2). Rooting usually will occur from 1 to 6 months —faster with some plants than with others.

If more than one plant of a kind is needed, several stems from the same plant can be layered. Sometimes long stems such as those on vines are layered in several places, thus producing a number of plants from one stem (figure 3).

AIR LAYERING

For propagation by air layering, it is best to select a well-branched, upright stem. The process of slitting or notching the stem is the same as illustrated in figure 1. Sometimes the stem is completely girdled.

Three or four handfuls of wet sphagnum moss is then packed around the prepared portion of the stem and tied in place with a string. A transparent freezer bag, or the equivalent, with the closed end cut off, can be slipped over the wet sphagnum and tied tightly at each end (figure 4). If the air layers are left on the plant over winter, the new roots may be injured by freezing. It is best, therefore, to cut them away from the mother plant and set them in good soil before freezing weather arrives.

Figure 4. Air layering

MOUND LAYERING

Vigorous, well established shrubs of many types growing in well-drained sandy loam soil can be cut back to about 5 inches above the soil level. This is done early in the spring, before growth starts. Soil is then mounded over the base of the plant so the top of the stub ends are buried ½ inch deep.

Shoots will soon arise from the cut stems. As they grow taller soil is gradually worked among them so by fall

the old cut ends should be buried 3 to 4 inches below the surface of the mound. The following spring the mound of soil can be gently forked away, the rooted stems cut off and set out as young plants (figure 5).

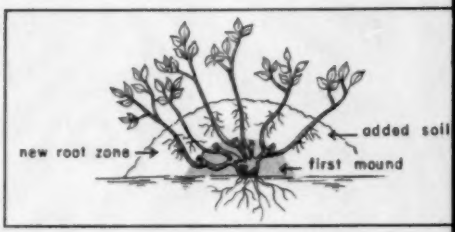

Figure 5. Mound layering

CARE OF YOUNG PLANTS

When the layered stems have rooted plentifully they are cut away from the parent plant, usually during the early spring, but abundantly rooted layers may be separated and planted in summer if the new plants are kept watered during dry periods. Each new plant should have a good root system and a top with leaves or leaf buds (figure 6). Plant each rooted layer in well-drained loamy soil, or poorer soil prepared with peat, and water as necessary to keep the ground moist during the first growing season. Watering and fertilizing each season will stimulate growth and produce strong plants.

Figure 6. A rooted layer

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